Proprietors' Income

Proprietors' income with inventory valuation and capital consumption adjustments is the current-production income of sole proprietorships and partnerships and of tax-exempt cooperatives./1/ Proprietors' income includes corporate directors' fees, but it excludes the imputed net rental income of owner-occupied nonfarm housing as well as the dividends and the monetary interest that are received by nonfinancial business and the nonfarm rental income received by persons not primarily engaged in the real estate business./2/

Proprietors' income accounted for almost 9 percent of total personal income at the national level in 2002 (table D). The estimates of proprietors' income are generally presented in two parts--nonfarm proprietors' income, which accounted for about 98 percent of proprietors' income, and farm proprietors' income, which accounted for the remaining 2 percent.

Nonfarm proprietors' income

Nonfarm proprietors' income consists of the income that is received by nonfarm sole proprietorships and partnerships and the income that is received by tax-exempt cooperatives.

Income of nonfarm sole proprietorships and partnerships

The national estimates of the income of nonfarm sole proprietorships and partnerships are based on tabulations of (1) "net-profit-less-loss" as reported to the Internal Revenue Service (IRS) on Schedule C of form 1040, for sole proprietorships; (2) net-profit-less-loss from form

^{1.} A sole proprietorship is an unincorporated business owned by a person. A partnership is an unincorporated business association of two or more partners. A tax-exempt cooperative is a nonprofit business organization that is collectively owned by its customer-members.

^{2.} The dividends are included in personal dividend income, the monetary interest, in personal interest income, and the nonfarm rental income, in rental income of persons.

1065, for partnerships; and (3) "net income (loss) from rental real estate" from Schedule K of form 1065./3/ Because these data do not always reflect the income earned from current production and because they are incomplete, the estimates also include four major adjustments--the inventory valuation adjustment (IVA), the capital consumption adjustment (CCAdj), the "misreporting" adjustment, and the adjustment for the net margins on owner-built housing./4/ The IVA removes the effects of the gains and losses that result from changes in the prices of products withdrawn from inventories. The CCAdj represents the difference between capital consumption allowances--depreciation on the historical-cost basis used in the source data--and the consumption of fixed capital--depreciation valued on a replacement-cost basis and including the effects of the accidental destruction of depreciable plant and equipment./5/ Specific adjustments are made for the accidental destruction caused by particular major natural disasters.

3. The net-profit-less-loss reported on Schedule C of form 1040 includes corporate directors' fees.

^{4.} For other adjustments to the tax data, see NIPA table 8.23, "Relation of Nonfarm Proprietors' Income in the National Income and Product Accounts (NIPA's) to Corresponding Measures as Published by the Internal Revenue Service (IRS)," <u>Survey of Current Business</u> 82 (August 2002): 120.

^{5.} The capital consumption adjustment also includes the differences between the service lives and the depreciation patterns used for tax accounting and the empirically based depreciation schedules that are used for national economic accounting. See Arnold J. Katz and Shelby W. Herman, "Improved Estimates of Fixed Reproducible Tangible Wealth, 1929-95," <u>Survey</u> 77 (May 1997): 69-92.

See also "Capital consumption adjustment" and "Inventory valuation adjustment" in the "Glossary."

The "misreporting" adjustment adds an estimate of the net income of sole proprietors and partnerships that is not reported on tax returns. This adjustment accounted for almost half of nonfarm proprietors' income in 2002./6/

The adjustment for the net margins on owner-built housing is an addition to the estimate for the construction industry. It represents the imputed value of the net income by individuals from the construction or renovation of their own dwellings.

Like the national estimates, the state estimates are based on data tabulated from Schedule C of form 1040 and from form 1065. The geographic coding of the data is by tax-filing address. This address is assumed to be the same as the address of the place of residence. For additional information, see the section "Geographic characteristics of the source data" in the "Overview."

As previously mentioned, the national estimates reflect decreases in income that result from damage to fixed capital that is caused by natural disasters, such as hurricanes and floods; damage to inventories is also reflected in the adjustments. The national and state adjustments are prepared primarily on the basis of information from the Federal Emergency Management Agency.

The source data necessary to prepare the other adjustments--including the IVA, the CCAdj, and the misreporting adjustment--are available only at the national level. Therefore, the national estimates of nonfarm proprietors' income that include the adjustments are allocated to states in proportion to tax return data that do not reflect the adjustments. The national estimates of the income of nonfarm sole proprietorships and partnerships excluding the misreporting adjustment for 1992-2000 for most of the SIC two-digit industries were allocated to states in

^{6.} See footnote 2 in the section "Wage and Salary Disbursements."

proportion to the sums for each industry of the IRS data for net-profit-less-loss and for net income from rental real estate./7/ For coal mining, the national estimate excluding the misreporting adjustment was allocated to states in proportion to the number of Schedules C plus the number of partners in partnerships other than limited partnerships./8/ For the other industries, the national estimates excluding the misreporting adjustment were allocated to states in proportion to "net gross receipts" (gross receipts less returns and allowances) for each industry./9/

The national estimates of the misreporting adjustment for 1992-2000 for all industries except coal mining were allocated to states in proportion to net gross receipts for each industry. The data for net-profit-less-loss are inappropriate for the allocation of the state estimates of this adjustment because net-profit-less-loss is reduced by the tax misreporting that this adjustment largely reflects. For coal mining, the national estimate of the misreporting adjustment was allocated to states in proportion to the same series that was used to allocate the estimate excluding the misreporting adjustment.

The state estimates for SIC industries for 2001 were extrapolated from the 2000 state estimates in three steps. First, the 2000 state estimates were summed to all-industry totals.

Second, these totals were extrapolated to 2001 by the relative change in the preliminary annual

7. For chemicals and allied products, the state data were adjusted to exclude the income of partnerships with gross receipts of \$20 million or more and fewer than four partners; the partners in these partnerships are assumed to be corporations.

^{8.} For coal mining, a large proportion of net-profit-less-loss is reported by limited partnerships from states that appear to be neither the states where the mining operations take place nor the states where most of the partners live.

^{9.} The net-profit-less-loss for these industries is not used, because the statistics for these industries are highly volatile, which indicates that they may be unreliable. In addition, these statistics frequently fluctuate into the negative range, so that they are difficult to use in an allocation procedure.

state estimates of nonfarm personal income; the extrapolated estimates for each year were then adjusted by allocation to sum to the national all-industry totals for the year. Third, the 2000 state estimates by industry were used as elements in a dual allocation procedure in which the national estimates by industry for 2001 were the primary controls, or column totals, and the all-industry state estimates for 2001 were the secondary controls, or row totals./10/

The national estimates of the income of nonfarm sole proprietorships and partnerships for misreporting adjustment for the 2001 North American Industry Classification System (NAICS) subsector industries were allocated to states in proportion to the sums for each industry of the IRS data "net gross receipts" (gross receipts less returns and allowances). The national estimates, excluding the misreporting adjustment, for most of the NAICS subsector industries were allocated to states in proportion to the sums for each industry of the IRS data for net-profit-less-loss and for net income from rental real estate.

The state estimates for NAICS industries for 2002 were extrapolated from the 2001 state estimates in three steps. First, the 2001 state estimates were summed to all-industry totals. Second, these totals were extrapolated to 2002 by the relative change in the preliminary annual state estimates of nonfarm personal income; the extrapolated estimates for each year were then adjusted by allocation to sum to the national all-industry totals for the year. Third, the 2001 state estimates by industry were used as elements in a dual allocation procedure in which the national estimates by industry for 2002 were the primary controls, or column totals, and the all-industry state estimates for 2002 were the secondary controls, or row totals.

Income of nonfarm tax-exempt cooperatives

10. See "Dual allocation" in the "Technical Notes."

The income of tax-exempt cooperatives consists of the net income, including the IVA and the CCAdj, that is received by agricultural cooperatives, rural electric cooperatives, and rural telephone cooperatives. Agricultural cooperatives are mainly farm-marketing cooperatives and farm-supply cooperatives; they are classified in the SIC in wholesale trade. The national and state estimates of the net income of these cooperatives are based on data provided by the Rural Business and Cooperative Service of the Department of Agriculture.

The national and state estimates of the net income of rural electric cooperatives and of rural telephone cooperatives are based on annual data for the net margin, or profit, of these cooperatives that have outstanding loans from the Rural Utilities Service (RUS) (formerly the Rural Electrification Administration) of the Department of Agriculture. For the state estimates, the net margin of each cooperative is allocated to the states in proportion to the distribution of the cooperative's customer-members that is reported by the RUS. The allocated amounts for each type of cooperative are summed to state totals, and these totals are then used to allocate the national estimates to states.

Farm Proprietors' Income

Farm proprietors' income is the income received by the sole proprietorships and the partnerships that operate farms. The national and state estimates of this income are based on the national and state estimates of the net income of all farms prepared by the Economic Research Service (ERS) of the U.S. Department of Agriculture (USDA). The BEA estimates of the income of all farms differ somewhat from those used by USDA, and the income received by corporate farms is estimated and subtracted in order to derive the estimates of farm proprietors' income./11/ In this section, the derivation of the USDA estimates of the components of the net

^{11.} For information about the source data and the methods that are used to derive the USDA estimates, see Economic Research Service, <u>Major Statistical Series of the U.S. Department of</u>

income--that is, gross output less production expenses--of all farms is described first. Then, the adjustments made to the USDA estimates in order to obtain farm proprietors' income are described.

The USDA estimates of the net income of all farms are calculated as the estimates of gross output less the estimates of production expenses. For most of the components of gross output and for many of components of production expenses, the estimates are prepared at the state level and summed to yield the national estimates.

USDA estimates of gross output

Gross output consists of the cash receipts from the sales of agricultural products, the cash receipts from other farm-related activities, the Federal Government payments to farm operators, the imputed gross rental value of farm housing, the imputed value of the home consumption of farm products, and the value of the change in farm inventories.

Cash receipts from sales of agricultural products.--The cash receipts from sales accounted for about 85 percent of gross farm output and subsidies at the national level in 2002. Cash receipts consist of the gross revenue that is received by farmers from the sales of crops, livestock, and livestock products and of the net value of loans that are made by the Commodity Credit Corporation (CCC) and that are secured by crops./12/ The USDA national and state estimates of the cash receipts from the sales of agricultural products are based on data for the

<u>Agriculture, Volume 3: Farm Income</u> (Washington, DC: National Technical Information Service (NTIS), November 1988).

12. Intrastate interfarm sales of livestock are not included in the USDA estimates of cash receipts for livestock sales or in the USDA estimates of the expenses of livestock purchases, because source data for these transactions are not available. However, the receipts for these sales offset the expenses for these purchases in the state estimates of farm income.

quantities of the products sold or produced and on data for the market prices of these products. Estimates are prepared for each type of crop, such as wheat, corn, and tobacco; for each type of livestock, such as cattle, swine, and chickens; and for each type of livestock product, such as milk and eggs. For example, the annual estimates of the cash receipts from the crop sales are calculated as the product of the quantity of each type of crop that is sold and the market price for each type of crop.

The national and state estimates of the net value of CCC loans are based on annual estimates of the net value of the loans for each type of crop. The net value of the loans is the amount of the loans that are made less the amount of the loans that are redeemed in a given year.

Revenues from services and forestry.--This is the gross income from farm-related activities other than crop and livestock production, including the use of farms for recreational activities--such as hunting or fishing--the sale of forest products, and custom work performed for other farm operators--such as clearing land and harvesting crops.

Federal Government payments to farm operators.--These payments include deficiency payments under price support programs for specific commodities, disaster payments, conservation payments, and direct payments to farmers under federal appropriations legistion.

Imputed gross rental value of farm housing.--This imputation is an estimate of the gross rent that would be received by the owner--usually the farm operator--of farm dwellings occupied by the farm operator and by hired farm workers if the dwellings were rented at market value./13/

^{13.} The expenses--including interest, taxes, and depreciation--that are associated with the operation of these dwellings are included in farm production expenses. Including both the rental value and the expenses in the farm income accounts adds the net rental value of farm housing to farm income.

The estimate is calculated as the product of the gross rental value of the farm housing occupied by farm operators and the ratio of the market-sale value of all occupied farm housing to the market-sale value of farm housing occupied by the farm operators.

Imputed value of home consumption.--This imputation is an estimate of the market value of the food and the fuel that are produced and consumed on farms. The estimate is based on the quantity and the value at producers' market prices of the food and fuel.

Value of the change in farm inventories.--This value is an estimate of the value, at market prices, of the change in the quantity of the inventories of harvested crops or livestock that are owned by farmers./14/

For crops, for example, the estimate of the value of the change in the inventories of each type of crop is calculated as the difference between the value of the crops that are produced and the value of the crops that are sold or used as feed. This calculation accounts for all the inventories, regardless of the location of their storage, that are owned by farmers. The estimates of the value of the change plus the estimates of cash receipts from the sales of crops during the year yields a measure of the gross output of crops during the year.

USDA estimates of production expenses

The national and state estimates of farm production expenses consist of the estimates for the following expenses: Purchases of feed, livestock and poultry, seed, fertilizer, agricultural

14. The USDA's definition of the value of the change excludes the changes in the inventories

of crops that are held as collateral for CCC loans and in the inventories of growing crops, seed, fuel, fertilizer, and other raw materials owned by farmers.

chemicals and lime, and petroleum products; labor expenses; machinery rental and custom work; animal health costs; and all other expenses./15/

The estimates of production expenses for purchased goods except livestock, for labor, for machinery rental and custom work, and for animal health costs are primarily based on data for 10 "production regions" from the Agricultural Resource Management Study./16/ The regional estimates are allocated to states in proportion to data from the 1992 and 1997 Censuses of Agriculture. The allocations for 1993-96 are based on interpolations between the census data, and the 1997 distributions are held constant for 1998-2002.

BEA adjustments to the USDA state estimates

To derive the national and state estimates of farm proprietors' income, BEA adjusts the USDA estimates of the net income of all farms, mainly because the definitions and classifications used for the estimation of farm income by USDA differ from those used by BEA. First, the USDA estimates are adjusted to conform to BEA definitions and classifications./17/ Second, the BEA estimates of the net income are adjusted to exclude the income of corporate farms. The USDA estimates are adjusted to account for seven differences in definitions and classifications and for methodological differences.

^{15.} Labor expenses consist of the payments to farm labor contractors and the cash wages, pay-in-kind, and supplements to the wages of hired labor.

All other expenses consist mainly of the estimates of overhead, such as depreciation, mortgage interest, taxes, and the costs of electricity and telephone service.

^{16.} Each production region consists of states that share similarities in their agriculture.

^{17.} For the differences between the USDA and the BEA estimates of net farm income at the national level, see NIPA table 7.15 "Relation of Net Farm Income in the National Income and Product Accounts to Net Farm Income as Published by the U.S. Department of Agriculture," <u>Survey</u> 84 (March 2004): 35.

Depreciation.--Both the USDA and the BEA estimates of depreciation expenses are on current replacement-cost basis. However, the BEA estimates reflect a geometric depreciation schedule, whereas USDA estimates reflect a declining-balance schedule. The amount of the difference between the BEA and the USDA national estimates of depreciation is allocated to states in proportion to the USDA estimates. These amounts are added to the USDA state estimates of depreciation to yield the BEA estimates.

Patronage dividends.--The USDA estimates of the net income of all farms include estimates of the patronage dividends received by farm operators from agricultural cooperatives, which are mainly farm-marketing and farm-supply cooperatives. BEA classifies these cooperatives as nonfarm proprietorships and removes these dividends from the USDA national and state estimates./18/ The national estimate is allocated to states in proportion to unpublished estimates from the ERS; these estimates reflect the state distributions of "income from other farm-related sources" from the censuses of agriculture.

Wages and salaries.--The USDA classifies the wages and salaries received by the owner-operators of sole proprietorship farms, partnership farms, and family-held corporate farms as part of the return to capital and therefore does not deduct these salaries in the derivation of its estimates of the net income of all farms. BEA classifies these salaries as part of wages and salaries; therefore, the national and state estimates of the salaries are subtracted from the USDA estimates. The BEA national and state estimates of these salaries are based on data provided by USDA.

^{18.} The income of agricultural cooperatives that BEA measures as part of nonfarm proprietors' income is the profits of the cooperatives. The income from the agricultural cooperatives that BEA excludes from the USDA measure of farm income is the patronage dividends that are paid to farm operators out of the current and accumulated profits of the cooperatives.

Net CCC loans.--The USDA estimates of the cash receipts from crop sales include the net value of CCC loans (loans less redemptions); the loans are treated as crop sales, and any subsequent defaults on the loans do not affect the USDA estimates of the net income of all farms. BEA classifies the CCC loans as financial transactions: Crops held under CCC loan remain in measured farm inventories unless the loan is defaulted. The default of a loan is considered to be a sale of the crops and a reduction in farm inventories. To reflect this difference, BEA adjusts the USDA national and state estimates of the cash receipts from the sale of each type of crop and the value of inventory change for the crop./19/ The national estimates of the adjustments for each crop are allocated to states in proportion to data on net CCC loan activity for the crop from the Farm Service Agency.

<u>Fines</u>.--The USDA estimate of the net income of all farms excludes an estimate of the payment of fines by farm operators to the Federal Government. BEA classifies these fines as a production expense and subtracts these fines from the USDA national and state estimate of net income. The national estimate of these fines is allocated to states in proportion to the USDA estimates of cash receipts from the sale of crops and livestock.

<u>Farm housing</u>.-- The USDA estimates of the net income of all farms include the production of services of farm housing owned by farm operators as farm production. BEA classifies this production in the real estate industry rather than in the farm industry. The imputed gross rental value of farm housing and expenses associated with the operation farm

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^{19.} The adjustments to the USDA estimates of the value of inventory change largely offset the adjustments to the estimates of cash receipts. The adjustments also reflect the differences in valuation that result from the differences in the timing of the sales and of the changes in inventories. For more information, see Robert P. Parker, "A Preview of the Comprehensive Revision of the National Income and Product Accounts: Definitional and Classificational Changes," <u>Survey</u> 71 (September 1991): 30.

housing are removed from the USDA national and state estimates. The BEA national and state estimates of farm housing are based on data provided by USDA.

Farm Inventories.--The USDA estimates of the net income of all farms includes the value of changes in farm inventories of crops and livestock but excludes an estimate of value of the change in farm inventories of materials and supplies—such as feed, seed, and fertilizer. BEA defines farm inventories to include materials and supplies starting in 1991. The national estimate of the value of the change in these inventories is allocated to states in proportion to the USDA data on the year-to-year change in purchased inputs.

<u>Corporate farm adjustment</u>.--This BEA adjustment is made to net farm income because the estimates of the total net income of all farms--reflecting the coverage of the underlying source data--include the income of corporate farms. The adjustment excludes the income of these farms from the national and state estimates of the net income of corporate farms.

The national control totals of the income for 1992-2002 were prepared in five steps. First, the proportions of each of four components of gross output and the proportion of total production expenses that were accounted for by corporate farms for 1992 and for 1997 were calculated from data from the censuses of agriculture./20/ Second, corporate proportions for the corresponding gross output components and for production expenses were calculated for 1992-2001 from data from the Agricultural Resource Management Study, with the data from 2001 held constant for 2002. Third, the 1992 and 1997 census-based proportions were interpolated to

^{20.} The four components are cash receipts from the sale of agricultural products, cash receipts from other farm-related activities, Federal government payments, and the value of the change in inventories.

^{21.} In deriving the national estimates of corporate income, the value of the change in inventories of materials and supplies is added to the BEA national estimate of the production expenses and not included with crop and livestock inventory change in gross output.

1993-96 and extrapolated to 2002 by the relative change in a moving average of the corresponding survey-based proportions.

Fourth, the extrapolated proportions for each year were multiplied by the BEA national estimate of each component of the gross output for all farms and by the BEA national estimate of the production expenses for all farms in order to obtain the national estimates of the components and of production expenses for the corporations./21/ Fifth, the estimate of corporate production expenses for the year was subtracted from the sum of the estimates of the components of corporate gross output in order to obtain the national control totals for the income of corporate farms.

The national control totals for the net income of corporate farms for 1992-2002 were disaggregated to the state level in three steps. First, the corporate proportions of total cash receipts from the sale of crops and livestock for 1992 and for 1997 for each state were calculated from data from the censuses of agriculture and proportions for 1993-96 were derived with straight-line interpolation. Second, the proportions for each year were multiplied by the BEA state estimates for the year in order to obtain state approximations of the net income of corporate farms for those years; the 1997 proportions were used to obtain the approximations for 1998-2002. Third, the national control total for the net income of corporate farms for each year was allocated to states in proportion to the state approximations.